1. A micromirror device comprising:

a substrate with electrical components including address circuitry;

a micromirror; and

a unitary support structure interconnecting said substrate and said micromirror, said support structure including a first torsion member mounted at two locations on said substrate and a second torsion member mounted to opposite ends of said micromirror, said torsion members configured to permit rotation of said micromirror about multiple axes of rotation.

2. The device of claim 1, wherein said two opposite ends of said micromirror are opposite corners.

3. The device of claim 1, wherein said two opposite ends of said micromirror are opposite sides.

4. The device of claim 1, wherein the two locations on said substrate to which said at least one first torsion member are mounted are locations underlying two opposite ends of said micromirror.

5. The device of claim 1, wherein said support structure underlies said micromirror.

6. The device of claim 1, wherein said electrical components further comprise electrodes adapted to apply attractive forces to said micromirror.

7. The device of claim 6, wherein said electrodes are oriented beneath gap locations defined by said torsion members.

8. The device of claim 6, wherein at least one of said electrodes is configured with a plurality of portions at different levels, so that portions further from a center of rotation of said micromirror are at a greater distance from the micromirror than portions closer to the center of rotation.

9. The device of claim 8, wherein each of said electrodes comprises a stepped configuration.

10. The device of claim 6, comprising four of said electrodes each having substantially the same shape.

11. The device of claim 6, wherein said electrodes are oriented so that portions of said electrodes which are further from a center of rotation of said micromirror are at a greater distance from said micromirror than portions closer to the center of rotation.

12. The device of claim 11, wherein said electrode portions of each said electrode are continuous with one another.

13. The device of claim 11, wherein said portions are discrete members.

14. The device of claim 11 wherein each said electrode comprises a continuous angled member.

15. The device of claim 6, wherein each said electrode comprises a substantially planar electrode, wherein said electrodes are oriented so that portions of said electrodes which are further from a center of rotation of said micromirror are at substantially the same distance from said micromirror as portions closer to the center of rotation, when said micromirror is in a neutral configuration.

16. The device of claim 15, wherein said electrodes are mounted on via columns close to said micromirror.

17. The device of claim 13, wherein said portions of each said electrode form an electrode array, and wherein at least one of said portions of at least one of said electrodes is addressable independently of the other of said portions.

18. The device of claim 17, wherein each said portion is independently addressable.

19. The device of claim 15, wherein said portions of each said electrode form an electrode array, and wherein at least one of said portions of at least one of said electrodes is addressable independently of the other of said portions.

20. The device of claim 19, wherein each said portion is independently addressable.

21. The device of claim 1, wherein said micromirror is substantially quadrilateral.

22. The device of claim 1, wherein said micromirror is substantially hexagonal.

23. The device of claim 1, wherein said micromirror has a diameter of less than or equal to about 1 mm.

24. The device of claim 23, wherein said micromirror has a diameter of less than about 10 microns.

25. A micromirror device comprising:

a substrate with electrical components including address circuitry;

a micromirror; and

a support structure underlying said micromirror and joining said substrate with said micromirror, said support structure including a first torsion component having first and second ends mounted to said substrate and a second torsion component having first and second ends mounted to opposite ends of said micromirror, said first and second torsion components intersecting one another to provide a universal joint configured to permit rotation of said micromirror about multiple axes of rotation.

26. The device of claim 25, wherein said micromirror is substantially quadrilateral having first and second pairs of opposing corners, said first and second ends of said first torsion component are connected to opposite corners of one of said first and second pairs, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying the other of said first and second pairs.

27. The device of claim 25, wherein said micromirror is substantially quadrilateral having first and second pairs of opposing sides, said first and second ends of said first

torsion component are connected to opposite sides of one of said first and second pairs, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying opposite sides of the other of said first and second pairs.

28. The device of claim 25, wherein said micromirror is substantially hexagonal having first, second and third pairs of opposing corners, and first, second and third pairs of opposing sides, said first and second ends of said first torsion component are connected to opposite corners of one of said first, second and third pairs of opposing corners, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying opposite sides of one of said first, second and third pairs of opposing sides.

29. The device of claim 25, wherein said micromirror is substantially hexagonal having first, second and third pairs of opposing corners, and first, second and third pairs of opposing sides, said first and second ends of said first torsion component are connected to opposite sides of one of said first, second and third pairs of opposing sides, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying opposite corners of one of said first, second and third pairs of opposing corners.

30. The device of claim 25, wherein said micromirror is substantially hexagonal having first, second and third pairs of opposing corners, and first, second and third pairs of opposing sides, said first and second ends of said first torsion component are connected to opposite sides of one of said first, second and third pairs of opposing sides, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying opposite sides of another of said first, second and third pairs of opposing sides.

31. The device of claim 25, wherein said electrical components further comprise electrodes adapted to apply attractive forces to said micromirror, said electrodes being oriented beneath gap locations defined by said torsion components.

32. The device of claim 31, wherein said electrodes are oriented so that portions of said electrodes which are further from a center of rotation of said micromirror are at a greater distance from said micromirror than portions closer to the center of rotation.

33. The device of claim 32, wherein each of said electrodes comprises a stepped configuration.

34. The device of claim 31, comprising four of said electrodes each having substantially the same shape.

35. The device of claim 32, wherein said electrode portions of each said electrode are continuous with one another.

36. The device of claim 32, wherein said portions are discrete members.

37. The device of claim 32, wherein each said electrode comprises a continuous angled member.

38. The device of claim 32, wherein said portions of each said electrode form an electrode array, and wherein at least one of said portions of at least one of said electrodes is addressable independently of the other of said portions.

39. The device of claim 38, wherein each said portion is independently addressable.

40. The device of claim 31, wherein each said electrode comprises a substantially planar electrode, wherein said electrodes are oriented so that portions of said electrodes which are further from a center of rotation of said micromirror are at substantially the same distance from said micromirror as portions closer to the center of rotation, when said micromirror is in a neutral configuration.

41. The device of claim 40, wherein said electrodes are mounted on via columns extending from said support structure.

42. The device of claim 40, wherein said portions of each said electrode form an electrode array, and wherein at least one of said portions of at least one of said electrodes is addressable independently of the other of said portions.

43. The device of claim 42, wherein each said portion is independently addressable.

44. A micromirror assembly, comprising:

a substrate with electrical components including address circuitry; and

a plurality of micromirror devices each including a micromirror, at least one of said micromirror devices comprising a unitary support structure interconnecting said substrate and said micromirror, said support structure including a first torsion member mounted to said substrate at two locations and a second torsion member mounted to opposite ends of said micromirror, said torsion members configured to permit rotation of said micromirror about multiple axes of rotation.

45. The assembly of claim 44, wherein each said micromirror device comprises a support structure interconnecting said substrate and said micromirror, respectively, each said support structure including a first torsion component mounted to two locations on said substrate and a second torsion component mounted to opposite ends of said respective micromirror, said torsion components configured to permit rotation of said micromirrors about multiple axes of rotation.

46. The assembly of claim 45, wherein said first torsion components of at least two adjacent micromirror devices are commonly mounted to said substrate.

47. The assembly of claim 45, wherein each said support structure comprises a universal joint, each of said first and second respective torsion components intersecting one another.

48. The assembly of claim 47, wherein each said micromirror is substantially quadrilateral having first and second pairs of opposing corners, and each said second torsion component having first and second ends connected to opposite corners of one of said first and second pairs, and each said respective first torsion component having first and

second ends mounted to said substrate at locations underlying the other of said first and second pairs.

49. The assembly of claim 48, wherein said ends of said first torsion components which are adjacent one another in adjacent micromirrors are commonly mounted to said substrate.

50. An optical switching mechanism, comprising:

a first array of optical reflectors adapted to receive and reflect optical signals from at least one optical input source; and

a second array of optical reflectors adapted to receive optical signals reflected from said first array of optical reflectors and reflect the optical signals toward at least one optical output;

at least one of said optical reflectors comprising an assembly of micromirror devices; at least one of said micromirror devices being adapted for three dimensional orientation.

51. The optical switching mechanism of claim 50, wherein each said micromirror device of said at least one assembly of micromirror devices is adapted for independent three dimensional orientation.

52. The optical switching mechanism of claim 50, wherein each said optical reflector comprises an assembly of micromirror devices.

53. The optical switching mechanism of claim 52, wherein each said micromirror device is adapted for independent three dimensional orientation.

54. The optical switching mechanism of claim 50, wherein each said assembly of micromirror devices forms a smart surface.

55. The optical switching mechanism of claim 50, wherein said at least one micromirror device adapted for three dimensional orientation comprises a substrate with electrical components including address circuitry; a micromirror; and a support structure underlying said micromirror and joining said substrate with said micromirror, said support

structure including a first torsion component having first and second ends mounted to said substrate and a second torsion component having first and second ends mounted to opposite ends of said micromirror, said support structure being configured to permit rotation of said micromirror about multiple axes of rotation.

56. The optical switching mechanism of claim 55, wherein said support structure comprises a universal joint, said first and second torsion components intersecting one another.

57. The optical switching mechanism of claim 55, wherein said micromirror is substantially quadrilateral having first and second pairs of opposing corners, said first and second ends of said first torsion component are connected to opposite corners of one of said first and second pairs, and said first and second ends of said second torsion component are mounted to said substrate at locations underlying the other of said first and second pairs.

58. The optical switching mechanism of claim 55, wherein said electrical components further comprise electrodes adapted to apply attractive forces to said micromirror, said electrodes being oriented beneath gap locations defined by said torsion components.

59. The optical switching mechanism of claim 55, wherein said micromirror has a diameter less than or equal to about 10 microns.